

**TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL**

NASA/GODDARD SPACE FLIGHT CENTER

**REQUEST FOR TASK PLAN / TASK ORDER**

<b>CONTRACTOR</b>	<b>CONTRACT NO./TASK NO.</b>	<b>JOB ORDER NUMBER</b>	<b>APPROP. FY</b>
QSS Group, Inc.	NAS5- 99124      TASK NO. 420      AMENDMENT	567-322-10-10-89	00

**TASK TITLE:** (NTE 80 characters; include Project name)

**Ka-band Modulator and Antenna Characterization**

**APPROVALS:** (Type or print name and sign)

**ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)**

Michael Powers

DATE

11/8/00

ORG CODE

567

MAIL CODE

567

PHONE

301-286-4820

**BRANCH HEAD**

John Chitwood

DATE

Nov-8, 2000

CODE

567

PHONE

301-286-5936

**CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)**

Robert S. Lebar, Jr.

DATE

11/13/00

CODE

562

PHONE

301-286-6382

**FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE**

(IF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK)

**CONTRACTING OFFICER'S QUALITY REP.**

**DESIGNATED FAM:**

☒ NO      ☐ YES

The contractor shall identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. The contractor shall complete and submit the required Reps and Certs.

(To be completed by Contracting Officer)

**C.O. Requested Quote on:**

**Date:** NOV 14 2000

Contractor will develop specification or statement of work under this task for a future procure ☒ NO      ☐ YES

Flight hardware will be shipped to GSFC for testing prior to final delivery. ☒ No      ☐ YES      ☐ N/A

Government Furnished Property/Facilities: ☐ No      ☒ YES - SEE LIST OF GFP (offsite only) / FACILITIES (onsite only)

Onsite Performance: ☐ NO      ☒ YES      If yes: ☒ TOTAL      ☐ Partial  
If partial, indicate onsite work in SOW by asterisk (\*)

Surveillance Plan Attached: ☒ No      ☐ YES

Highlighted Contract Clauses: (to be completed by Contracting Officer)

Per Clause H.14, Task Ordering Procedure, subparagraph (f), the effective date of this task order shall be 1/15/01.

**INCENTIVE FEE STRUCTURE (check one)**

(See Contract NAS5-99124, Attachment K, Incentive Fee Plan)

	<input checked="" type="checkbox"/> No. 1	<input type="checkbox"/> No. 2	<input type="checkbox"/> No. 3	<input type="checkbox"/> No. 4	<input type="checkbox"/> No. 5
Cost	10%	50%	25%	25%	%
Schedule	15%	25%	25%	50%	%
Technical	75%	25%	50%	25%	%

(To be completed by Contracting Officer)

The target cost of this task order is \$ 22,424

The target fee of this task order is \$ 1,431

The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is \$ 23,855

The maximum fee is \$ 2,092

The minimum fee is \$0.

**AUTHORIZED SIGNATURE:**

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"

*Theresa J. Becker*  
SIGNATURE OF CONTRACTING OFFICER

1/03/01  
DATE

Theresa J. Becker  
TYPED NAME OF CONTRACTING OFFICER

**CONTRACTOR'S ACCEPTANCE:**

AUTHORIZED SIGNATURE

DATE

GSFC FORM 703-1845

12/98 (OLDER VERSIONS ARE OBSOLETE)

DISTRIBUTION: CONTRACTOR, CONTRACTING OFFICER, COTR, CODE 303, RESOURCES ANALYST, ASSISTANT TECHNICAL REPRESENTATIVE

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## REQUEST FOR TASK PLAN / TASK ORDER

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<b>QSS Group, Inc.</b>	<b>NAS5- 99124</b>	<b>420</b>	

Applicable paragraphs from contract Statement of Work: Function 2 B, C and Function 5 A

**STATEMENT OF WORK:**

**Contractor shall improve the design of and use an engineering model Ka-band QPSK modulator for testing of a Ka band antenna:**

1. Characterize a 26 GHz linear phase modulator supplied by Miteq using a delay/stagger pcb built at GSFC with respect to RF parameters such as conversion loss, amplitude balance, phase, and BER.
2. Based on modulator performance, determine the necessary input and output filtering, amplification and other parameters required for using the modulator with the Harris Ka antenna.
3. Build copies of the delay/stagger board.
4. Perform BER tests with the Ka antenna.
5. Issue a final report of the work accomplished and results obtained.

**PERFORMANCE SPECIFICATIONS:**

**Reports and Documents:** Technical performance will be based on thoroughness and completeness of written reports. Acceptable performance is that the ATR is satisfied that the material reflects the proper level of technical expertise and meets the objectives of the activity. Reports shall be delivered to the ATR both as a hard copy and in MS Office compatible format via either diskette or email.

**Technical Progress Report:** Acceptable performance is that the ATR is satisfied that he is being kept informed of the status of work performed and of issues requiring his attention.

**Final Report:** to contain the detailed engineering results as described in the SOW. This report shall include recommendations for design improvement, if applicable, as well as report the measured results of the antenna.

**Management:** Performance will be measured against the following metrics: (1) accomplishment of objectives; (2) clear, incremental progress; (3) responsiveness to issues; (4) efficient and appropriate staffing; and (5) coordination with and good working relationship with ATR and other related contractor efforts, if applicable.

**APPLICABLE DOCUMENTS:**

None.

**TASK END DATE:** 7/31/01

**MILESTONES/DELIVERABLES AND DATES:**

- |                              |                            |         |
|------------------------------|----------------------------|---------|
| 1. Test Miteq I/Q Module     | <del>1/31/01</del>         | 3/31/01 |
| 2. Test delay/stagger pcb    | <del>2/28/01</del>         | 3/31/01 |
| 3. Build second board        | <del>4/15/01</del>         | 5/15/01 |
| 4. Test Ka antenna           | 6/30/01                    |         |
| 5. Final Report              | 7/31/01                    |         |
| 6. Technical Progress Report | Monthly, 15th of the month |         |

**PERFORMANCE STANDARDS:**

**Schedule:** On-time delivery/completion of the above deliverables/milestones  
**Technical:** ATR's acceptance of the above

**FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):**

M. Powers, building 19, room S34